SECTION 905

SANITARY SEWER SERVICE LINES

905.1 GENERAL

905.1.1 The requirements of this section apply only to sanitary sewer service lines installed or reconnected within the public right-of-way or easement. Although the maintenance of sanitary sewer lines is the responsibility of the property owner, including the portion within the public right-of-way as established by City Ordinance, the CONTRACTOR shall be responsible for the integrity of the installation or reconnection of all sanitary sewer service lines during the warranty period.

905.1.2 Sanitary sewer service lines shall be installed at all locations shown on the plans. The CONTRACTOR shall be aware of the importance of accurately recording the horizontal and vertical location of sanitary sewer service lines.

905.2 REFERENCES

905.2.1 ASTM:
D 1557
D 2661
D 2665

905.2.2 This publication:
SECTION 801

905.3 MATERIALS

905.3.1 The materials listed herein are considered pre-approved. The CONTRACTOR shall submit to the ENGINEER a certified list of all sanitary sewer service materials which will be utilized on the project. All materials not listed must be submitted to the ENGINEER for approval no less than thirty (30) calendar days prior to the proposed date of use.

905.3.2 The following saddles have been pre-approved for use in the connection of sanitary sewer service lines to collection lines. The CONTRACTOR shall be responsible for assuring that the supplied saddle is compatible with the size and type of both the collection line and service line. Saddles shall be so constructed to have a positive stop to prevent service line from protruding into the main.

905.3.2.1 "Pioneer Sewer Branch Connector" (Hersey) 90 degree (tee) type only, with alignment ring and elastomeric gasket.

905.3.2.2 "Sealtite Sewer Pipe Saddle" (Geneco), Type "S", Type "D" Model "DD", Type "E" Models "EO" and "EBG" and Type "C" Model "CO" (if 4" service is required a 4" x 6" reducer must be used).

905.3.2.3 For all saddles with a 2 1/2" wide strap will be required when saddle is attached to plastic pipe.

905.3.3 The following saddles have been pre-approved for use in the connection of sanitary sewer services to manholes. Manhole connections shall only be allowed if shown on the plans or approved by the ENGINEER.

905.3.3.1 "Fowler Quick-Way Sewer Tap" Models 4-41, 4-42, 6-41, and 6-42.

905.3.4 Service risers, if required, shall be PVC Schedule 40 pipe conforming to ASTM D 2665 cast iron soil pipe (service weight), or ABS Schedule 40 sewer pipe conforming to ASTM D 2661. Only PVC or ABS shall be used when connecting to flexible pipe.

905.3.5 Fittings shall be compatible with the service line material. PVC or ABS fittings shall be schedule 40 injection molded only.

905.3.6 Service line laterals shall be cast iron soil pipe (service weight), PVC Schedule 40, or ABS Schedule 40.

905.4 INSTALLATION (NEW CONSTRUCTION STUB-OUTS)

905.4.1 Service lines shall be installed to the right-of-way line or 5 feet beyond any existing or proposed improvements (i.e., pavement, curb and gutter, sidewalk, etc.).

905.4.2 Saddle connections shall be installed at a 45 degree angle (upward) above the springline of the main sewer and shall be spaced a minimum of 3 feet apart (centerline to centerline).

905.4.3 Service lines shall be installed at a minimum slope of 2 percent with a minimum bury at the terminus of 4 feet, unless otherwise authorized by the ENGINEER. The pipe shall be placed on suitable bedding having a density of not less than 90 percent of maximum density, as determined by ASTM D 1557. The pipe shall be uniformly supported by the

bedding. Backfill of the service line shall be carefully placed and compacted per the requirements of Section 801.

905.4.4 The terminus of the service line shall be plugged with an end cap compatible with the pipe size and material. An electronic marker disk shall be placed over the end of the service line and an "S" (3 inches high and 1/4 inch depth) shall be stamped or saw-cut into top of the curb surface directly over the service.

905.5 RISERS

905.5.1 Risers shall be utilized where the sewer main is 15 feet or greater in depth. The riser shall extend to an elevation such that the service line can be installed as specified in Subsection 905.4.3.

905.5.2 The riser shall be installed in accordance with the Standard Detail Drawings. The riser shall be one length of pipe cut to the appropriate length as necessary, unless otherwise approved by the ENGINEER.

905.6 SERVICE RECONNECTIONS

905.6.1 On replacement/rehabilitation type projects, all existing services shall be reconnected to the new sewer main utilizing new saddles and service line pipe. The length of removed existing service line shall be as necessary to accommodate the trench excavation and backfill conditions.

905.6.2 The CONTRACTOR shall visually observe the condition of the existing service line and notify the ENGINEER of any obviously deteriorated or defective conditions. The ENGINEER or CONTRACTOR shall notify the property owner of the situation and the property owner shall be afforded the opportunity to visually observe the service within a reasonable amount of time as dictated by normal construction activity.

905.6.3 The CONTRACTOR shall connect the new service line pipe to the existing pipe at the same slope and alignment as the existing service. Particular care shall be taken to assure a sound connection. The service line shall be uniformly supported on suitable bedding compacted to a density of not less than 90 percent of maximum density, as determined by ASTM D 1557. If service lines are reconnected such that the pipe is not fully supported, hand tampers shall be used to properly compact under the pipe.

905.6.4 The CONTRACTOR shall stamp or saw-cut an "S" (3 inches high and 1/4 inch depth) into top of curb surface directly over the service line.

905.7 RECORD INFORMATION: The CONTRACTOR shall provide accurate record information to the ENGINEER regarding both the horizontal and vertical location of the service. The horizontal location shall be by the distance to the nearest foot from both the upstream and downstream manhole lid center. Elevations to the nearest 0.10 foot shall be provided for the saddle, top of riser and invert of the service stub-out, as applicable.

905.8 MEASUREMENT AND PAYMENT

905.8.1 Sanitary sewer service lines installed on new construction shall be measured by the linear foot horizontally from the center of the sewer main, or top of riser, if applicable, to the end of the service line. Payment shall be made at the unit price per linear foot and shall include the saddle connection, pipe, trenching, compaction and backfill, electronic marker disk, testing, and all incidental work necessary to complete the installation.

905.8.2 Sanitary sewer service risers shall be measured by the vertical foot from the top of the sewer main to the top of the riser. Payment shall be made at the unit price per vertical foot, and shall include the pipe and casing (if required).

905.8.3 Sanitary sewer service reconnections shall be measured per each. Payment shall be made at the unit price per each reconnection shall include the saddle connection, new service pipe, connection to the existing service line, and all incidental work necessary for a complete reconnection.